

122 FERC ¶ 61,270
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeene G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

Northern Natural Gas Company

Docket No. CP07-108-001

ORDER ON REHEARING AND CLARIFICATION

(Issued March 24, 2008)

1. On March 17, 2008, Northern Natural Gas Company (Northern) filed a request for clarification or, in the alternative, rehearing of the order issued in this proceeding on March 12, 2008 pertaining to the Redfield storage field (Redfield) in Dallas County, Iowa.¹ In the March 12 Order, the Commission authorized Northern, *inter alia*, to increase Redfield's certificated storage capacity by 8 Bcf. Northern seeks clarification or rehearing (1) to increase certain operational pressure limits specified in the March 12 Order, and (2) to authorize limited ranges for the amount of gas that may be injected into the storage field's reservoirs, rather than establishing precise limits.

2. For the reasons discussed below, we will grant rehearing.

Discussion

3. As pertinent here, the Commission's March 12 Order (1) authorized maximum shut-in bottomhole pressures (BHPs) of 730 psig for the Elgin reservoir; 910 psig for the St. Peter reservoir; 1,338 psig for the Mt. Simon reservoir; and 900 psig for the Galena reservoir;² and (2) required that the collective maximum amount of gas to be injected into the St. Peter, Elgin, and Galena formations not exceed 55.472 Bcf and that the maximum amount of gas to be injected into the Mt. Simon formation not exceed 75.079 Bcf.³

¹ *Northern Natural Gas Company*, 122 FERC ¶ 61,227 (2008).

² *Id.* at Ordering Paragraph (D)(5).

³ *Id.* at Ordering Paragraph (D)(4).

4. Northern seeks clarification and/or rehearing of the maximum shut-in BHPs and the precise maximum inventory limits for the various reservoirs. Northern states that it must have the clarifications requested before it can accept its certificate and proceed with construction to ensure that it will be able to provide the firm storage service authorized by the Commission. In addition, Northern states that in order to meet the in-service dates that begin June 1, 2008, it must mobilize contractors and begin construction immediately.

5. Northern states that the requested modifications are operational in nature and have not been the subject of any protests or comments. Northern's customers have supported this project and demonstrated their need and desire for the additional firm storage service to commence June 1, 2008. Without expedited consideration by the Commission, Northern is doubtful that the increased storage capacity will be available in 2008.

6. The March 12 Order set specific maximum shut-in BHPs for the Redfield storage field based on information provided by Northern and verified by the Commission's staff. In its request for rehearing, Northern explains that Redfield is an aquifer storage field, with gas displacing water in the storage formations. Northern also clarifies that in order to minimize the potential for gas to be diffused into the surrounding aquifer, Northern's operational practice has been to aggregate late season injections of gas in the center of the field. This practice minimizes the movement of gas and pressure towards the edge of the gas bubble and results in higher localized pressures in the center of the field relative to the edges of the field.

7. Northern states that its historical practice has been to increase late season injections in this manner immediately followed by withdrawals that begin after reaching peak inventory in the field. Since these late season injection volumes are more tightly contained in the center of the field, the gas is stored in an area that has increased gas saturation, with minimized risk of recovery loss due to diffusion into the surrounding aquifer. Further, Northern explains that these localized higher pressures provide increased daily deliverability from the field, which improves its ability to provide peaking service to its customers.

8. Northern states that operational circumstances that provide for late season injections will cause the shut-in BHPs in the center of the field to be higher than the indicative pressures shown on some of its exhibits to the application. Northern further states that the BHPs for which it seeks approval in the instant rehearing request are based on maximum reservoir pressures Northern has operationally experienced in recent years. Northern's rehearing request also includes additional information to demonstrate that the requested maximum BHPs are appropriate.

9. Based on the clarifying information that Northern has provided about the operational characteristics of the Redfield aquifer storage field, the Commission will grant rehearing and authorize the following pressure levels as the maximum shut-in

BHPs:

Reservoir	Maximum Pressure (psig)
Elgin	744
St. Peter	978
Mt. Simon	1,409
Galena	968

10. Northern states that the March 12 Order's precise limit of 75.079 Bcf for the Mt. Simon formation and the precise aggregated limit of 55.472 Bcf for the interconnected St. Peter, Elgin, and Galena formations could place operational restrictions on its ability to optimize storage cycle recoverability and daily flow requirements. Northern requests approval to operate the Elgin, Galena, and St. Peter reservoirs at an approved aggregated maximum inventory within the range of approximately 54 Bcf to 57 Bcf, instead of precisely 55.472 Bcf, and to operate the Mt. Simon reservoir within the range of approximately 73.5 Bcf to 76.5 Bcf, instead of precisely 75.079 Bcf, provided that inventories in all four reservoirs do not exceed 130.551 Bcf, the total for all four reservoirs specified in the March 12 Order. The Commission will grant Northern's request for rehearing to permit the reservoirs to be operated at maximum inventories within these ranges, provided that the total for all four reservoirs shall not exceed 130.551 Bcf.

The Commission orders:

Rehearing is granted to amend the certificate granted by the Commission's March 12 Order, as discussed herein.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.